Analisis dan Simulasi Perbandingan QOS Jaringan MPLS Ipv6 Dengan Menggunakan Routing Protokol OSPFv3, IS-IS, dan EIGRP Untuk Layanan Triple Play

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Abstract

IP is an addressing method used in the world of the internet. The increase in internet users also has an impact on increasing IP users. IPv6 is hereto be the answer to this problem, where IPv6 has very broad addressing capabilities when compared to IPv4. Fast package delivery is also a dream for internet users. MPLS is the answer torequests for fast package delivery. MPLS is a technology used in backbone networks, MPLS offers very high data transmission speeds with its forwarding technology. Apart from these two things, choosing the right routing protocol is also the main thing that must be considered. This routing protocol plays the roleof being the best pathfinder which will later be used as a packet delivery path. By combining the forwardingcapabilities of MPLS and using the right routing protocol, packet delivery can be maximized. In this final project, a network is simulated using IPv6 using the EIGRP, ISIS, and OSPFv3 routing protocols. Besides that, MPLS technique will be added to the backbone network. From the simulation analysis carried out by the EIGRP protocol, the best results were obtained compared to ISIS andOSPFv3.

Keywords: IPv6, MPLS, ISIS, OSPFv3